

## GLOSSARY AND ABBREVIATIONS

acute exposure	exposure at a relatively high level over a short period of time (minutes to a few days) (This is defined in IRIS as 24 hours or less; however, sources consulted utilized exposure periods of up to a few days. Consequently, the more encompassing definition is appropriate in reading this document.)
ARL	acceptable risk level. The maximum level of individual lifetime carcinogenic risk, usually calculated using a cancer slope value, which is considered "acceptable" by risk managers. See Section 4 for more detail.
ATSDR	Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services, Public Health Service
BW	body weight of an individual consumer (kg)
CAG	Cancer Assessment Group at U.S. Environmental Protection Agency
cancer slope factor	the slope of the dose-response curve in the low-dose region used with exposure to calculate the estimated lifetime cancer risk. Often expressed as risk per 1 m of exposure to the toxic chemical per kilogram body weight per day (mg/kg/d).
carcinogen	an agent capable of inducing a carcinogenic response
CCRIS	Chemical Carcinogenesis Research Information System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Act List of Sites
chronic exposure	multiple exposures occurring over an extended period of time, or a significant fraction of the lifetime
$C_{m,j}$	concentration of contaminant $m$ in the edible portion of fish species $j$ (mg/kg)
$C_m$	concentration of contaminant $m$ in the edible portion of fish (mg/kg)
CNS	central nervous system

confounder	condition or variable that may be a factor in producing the same response as the agent under study
consumption limits	a daily fish consumption limit, based on health and toxicity data
CR	mean daily consumption rate of fish (kg/d)
critical effect	the first adverse effect, or its known precursor, that occurs as the dose rate increases
$CR_j$	consumption rate of fish species $j$ (kg/d)
$CR_{lim}$	limit on the amount of fish that can be consumed per day (kg/d)
$CR_{md}$	limit on the number of fish meals that can be consumed per day (meals/day)
$CR_{mm}$	limit on the number of fish meals that can be consumed per month (meals/mo)
$C_{tm}$	total concentration of chemical $m$ in an individual's fish diet
developmental toxicity	study of adverse effects on the developing organism resulting from exposure prior to conception, during prenatal development, or postnatally up to the time of sexual maturation
dose-response	relationship between the amount of an agent and changes in aspects of the biological system apparently in response to that agent
$E_m$	exposure to contaminant $m$ from ingesting fish (mg/kg/d)
$E_{m,j}$	exposure to contaminant $m$ from ingesting fish species $j$ (mg/kg/d)
$E_{mc}$	exposure to a given contaminant in a given species of fish associated with a given risk of cancer (mg/kg/d)
$E_{mn}$	maximum acceptable exposure (dose) of a noncarcinogen from a specific contaminant in a specific fish species (mg/kg/d)
endpoint	response measure in a toxicity study
EPA	U.S. Environmental Protection Agency
exposure limits	a daily limit on exposure based on health and toxicity data, which the reader may calculate, using the study data provided in this or other sources (mg/kg/d)
FDA	U.S. Food and Drug Administration
FEL	frank effect level
FGDC	Federal Geographic Data Committee

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FRAC	fraction of a given fish species in an individual's diet (unitless)
GIS	geographic information system
GPS	Global Positioning Satellite
HCG	human chorionic gonadotropic
HEAST	Health Effects Assessment Summary Tables
HI	hazard index, or ratio of the estimated exposure dose to the RfD for the chemical (unitless)
HI <sub>mix</sub>	hazard index of a chemical mixture (unitless)
HSDB	Hazardous Substances Data Bank, available on line through TOXNET
incidence	number of new cases of a disease within a specified time
IRIS	Integrated Risk Information System, a database maintained by EPA, available on line through TOXNET and by subscription through NTIS
latency period	time between induction of a health effect and its manifestation
LEL	same as LOAEL (per IRIS), see below
LH	luteinizing hormone
LMS	linearized multistage model
LOAEL	lowest exposure level at which there are statistically or biologically significant increases in frequency of severity of adverse effects between the exposed population and its appropriate control group
LOD	limit of detection
modifying factor	a factor used in operationally deriving the RfD from experimental data. It addresses concerns regarding differences in absorption, tolerance to a chemical, or lack of a sensitive endpoint.
MOE	margin of exposure
MRL	Minimal Risk Level, from ATSDR. An estimate of daily exposure that is likely to be without an appreciable risk of deleterious effects (noncancerous) over a specified duration of exposure: acute—1 to 13 days; intermediate—14 to 365 days; chronic—over 365 days
MS	meal size (kg/meal)
mutagenic	capable of inducing changes in genetic material (e.g., DNA)
NAFWCD	North American Fish and Wildlife Consumption Database

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NAS	National Academy of Sciences
NGOs	nongovernmental organizations
NHANES II	National Health and Nutrition Examination Survey
NIOSH	National Institute of Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Association
NOAEL	exposure level at which there are no statistically or biologically significant increases in the frequency or severity of adverse effects between the exposed population and its control
NOEL	the same as NOAEL with the exception of the word adverse. NOEL specifies the absence of any effect
NSDI	National Spatial Data Infrastructure
NTIS	National Technical Information Service
NTP	National Toxicology Program
OAPCA	Organotin Antifouling Paint Control Act
OHEA	Office of Health Effects Assessment, U.S. Environmental Protection Agency
OPP	Office of Pesticide Programs, U.S. Environmental Protection Agency
PAHs	polyaromatic hydrocarbons
PCBs	polychlorinated biphenyls
PCS	Permit Compliance Systems
PEC	potency equivalency concentration
$P_j$	proportion of a given species in the diet (unitless)
PNA	polynuclear aromatic hydrocarbon
PNS	peripheral nervous system
POTW	publicly owned treatment works
$q_1^*$	cancer slope factor, lifetime cancer risk per mg/kg/d
QA/QC	quality assurance/quality control
R	incremental risk above background associated with contaminant at given dose (lifetime <sup>-1</sup> )
RAC	reference ambient concentrations

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$R_{\text{avg}}$	mean individual risk in the exposed population (risk/person-lifetime)
RDA	Recommended Dietary Allowance
reference dose (RfD)	estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime (mg/kg/d).
$\text{RfD}_m$	reference dose of a chemical mixture (mg/kg/d)
risk	the probability of injury, disease, or death under specific circumstances
RL	maximum acceptable risk level (unitless)
$R_{\text{mix}}$	individual cancer risk from the chemical mixture
RSC	relative source contribution
RTECS	Registry of Toxic Effects of Chemical Substances
SAB	Science Advisory Board, U.S. Environmental Protection Agency
SCE	sister chromatid exchange
SF	cancer slope factor, usually the upper 95 percent confidence limit on the linear term ( $q_1$ ) in the multistage model
$\text{SF}_m$	slope factor of a chemical mixture
SIZ	size of the exposed population (number of persons)
$\text{SV}_c$	the screening level concentration for a single contaminant in a given fish species (mg/kg)
$\text{SV}_n$	screening values of a given noncarcinogenic contaminant in a given species of fish (mg/kg)
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TEC	toxicity equivalency concentration
TEF	toxicity equivalency factor
teratogenic	capable of causing physical defects in the developing embryo or fetus
threshold	dose or exposure below which a significant adverse effect is not expected
TRI	Toxics Release Inventory

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uncertainty factors	one of several, generally 10-fold factors, used in operationally deriving the RfD from experimental data. They are intended to account for (1) the variation in sensitivity among the members of the human population (intraspecies variability); (2) the uncertainty in extrapolating animal data to humans; (3) the uncertainty in extrapolating from data obtained in a study that is of less-than-lifetime exposure to chronic exposure toxicity; (4) the uncertainty in using LOAEL data rather than NOAEL data; and (5) uncertainty generated by data gaps.
URL	Universal Resource Locator
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
weight of evidence	for carcinogens, this is a classification assigned to a chemical by EPA, based on the types of data available concerning carcinogenicity. On a scale of A to E, the classifications reflect the extent to which the available biomedical data support the hypothesis that a substance causes cancer in humans.
WHO	World Health Organization
WOE	weight-of-evidence
WWW or WEB	World Wide Web